

Amendments to the Claims

Please amend the claims as indicated below. All claims are listed below, with amended claims so marked. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for establishing a communication session through a network translation device with a communication protocol utilizing a single communication port for both setting up the communication session and transferring data during the communication session, the method comprising:

preparing a session setup for a session with a first machine, the session setup identifying an internal origin address and a first internal port to which the first machine expects a response to the session setup;

sending the session setup to a second machine through the network translation device, wherein the second machine ~~at least temporarily~~ is an endpoint to the communication session and ~~being~~ configured to recognize if the session setup includes the internal origin address and if so to associate with the first machine the routable external origin address of the network translation device;

receiving by the first machine a communication session initiation request from a third machine, said initiation having an associated external address/port for the third machine; and

sending an acknowledgement to said initiation to the external address/port so as to prime the network translation device to receive the session from the third machine.

2. (Previously Presented) The method of claim 1, further comprising:
sending content for the communication session from the first machine to the third machine, wherein the third machine is configured to wait for the content from the first machine before the third machine sends content to the first machine.

3. (Previously Presented) The method of claim 1, further comprising:
receiving data for the session from the third machine responsive to said priming.

4. (Previously Presented) The method of claim 1 wherein the protocol comprises modification to an original communication protocol requiring utilizing different communication ports for setting up the communication session and transferring data during the communication session.

5. (Previously Presented) The method of claim 1, wherein the session setup includes an alias for the first machine unrelated to a network address, and the second machine includes a registration server operable to perform:

receiving the session setup, said session setup including the alias;
examining the session setup to identify whether the session setup comprises the internal origin address for the first machine; and if so,
registering the first machine with respect to the alias and the external origin address.

6. (Canceled)

7. (Previously Presented) The method of claim 1, further comprising the network translation device performing:

receiving the initiation for the session from the second machine; and
translating the session acknowledgement for delivery to the first machine at the internal origin address.

8. (Currently Amended) A method for a registration server to facilitate communicating between a first endpoint behind a network address translator (NAT) and a second endpoint, comprising:

receiving a first registration for the first endpoint according to a protocol utilizing a single communication port for both setting up and transferring data during a communication session, said registration comprising an embedded network address, a port primed by the first endpoint, and an alias for the first endpoint, said priming including sending data from the first endpoint using the port to prime the NAT to receive responsive data on the port;

determining the embedded network address is a non-routable address; and
registering the first endpoint with an apparent origin address, ~~embedded~~ port, and ~~embedded~~ alias from which said registration originated;

receiving from the second endpoint a resolution request for the alias and replying to said request with at least the apparent origin address;

receiving an initiation for the session from the second endpoint;

forwarding the session ~~setup~~ initiation to the first endpoint at the apparent origin address; and

receiving from the first endpoint an acknowledgement of the session initiation;
and
forwarding the acknowledgement to the second endpoint, the second endpoint
determining whether the ~~second~~ embedded network address in the acknowledgement is
not routable, and if so, the second endpoint commencing waiting for data to be sent to
the second endpoint from the first endpoint through the NAT.

9. (Canceled)

10. (Currently Amended) The method of claim 8, ~~further comprising:~~
wherein the data to be sent to the second endpoint from the first endpoint
comprises audiovisual data.

11 - 20. (Cancelled)

21. (Currently Amended) A method for a first an endpoint internal to a network
translation device to set up a communication session with a ~~second~~ an endpoint
external to the network translation device, the method comprising:

contacting a registration server to resolve an alias for the ~~second~~ external
endpoint;

receiving a first session registration from the registration server, the first session
registration comprising a routable network address for the ~~second~~ external endpoint that

~~is routable~~, and a content port to which content ~~should be sent to~~ for the ~~second~~
external endpoint should be sent; and

modifying a protocol for the communication session requiring the ~~first~~ internal
endpoint to complete setting up the communication session and await receiving content
from the ~~second~~ external endpoint, said modifying including configuring the first end
point ~~being configured~~ to prime the network translation device by sending at least one
network packet to the ~~second~~ external endpoint at the routable address on the content
port [[,]] before said completing setting up the communication session with the ~~second~~
external endpoint; and

after said priming the network translation device, receiving content for the
communication session on the content port.

22. (Currently Amended) The method of claim 21, further comprising:
sending a second session registration for the ~~first~~ internal endpoint to the
registration server, the second session registration comprising [[a]] an embedded
network address for the ~~first~~ internal endpoint that is non-routable.

23. (Currently Amended) The method of claim 22, further comprising the
registration server:

receiving the second session registration for the ~~first~~ internal endpoint from a
routable network address associated with the network translation device;

identifying that the second session registration comprises [[a]] the embedded
network address that is non-routable, and responsive thereto, registering the ~~first~~

internal endpoint with respect to the routable network address associated with the network translation device;

receiving the first session registration for the ~~second~~ external endpoint; and
identifying that the ~~second~~ first session registration comprises a network address that is routable, and responsive thereto, registering the ~~first~~ external endpoint in accord with the first session registration.

24. (Currently Amended) The method of claim 22, further comprising:

wherein the registration server is configured to identify the non-routable network address within the second session registration, and responsive to said identifying, registering the ~~first~~ internal endpoint with respect to a routable address associated with the network translation device.

25 – 30. (Cancelled)

31. (Currently Amended) Machine-~~[[readable]]~~ accessible media having ~~associated~~ instructions for establishing a communication session through a network translation device with a communication protocol utilizing a single communication port for both setting up the communication session and transferring data during the communication session, wherein the instructions, if executed by one or more machines, results in:

preparing a session setup for a session with a first machine, the session setup identifying an internal origin address and a first internal port to which the first machine expects a response to the session setup;

sending the session setup to a second machine through the network translation device, the second machine at least temporarily an endpoint to the communication session and being configured to recognize if the session setup includes the internal origin address and if so to associate with the first machine the routable external origin address of the network translation device;

receiving by the first machine a communication session initiation request from a third machine, said initiation having an associated external address/port for the third machine; and

sending an acknowledgement to said initiation to the external address/port so as to prime the network translation device to receive the session from the third machine.

32. (Currently Amended) The media of claim 31 wherein the machine-
[[readable]] accessible media further include instructions, which when executed by one or more of machines, results in:

sending content for the communication session from the first machine to the third machine, wherein the third machine is configured to wait for the content from the first machine before the third machine sends content to the first machine.

33. (Currently Amended) The media of claim 31 wherein the machine-
[[readable]] accessible media further include instructions, which when executed by one or more of machines, results in:

receiving data for the session from the third machine responsive to said priming.

34. (Original) The media of claim 31 wherein at least a portion of said instructions comprises modification to an original communication protocol requiring utilizing different communication ports for setting up the communication session and transferring data during the communication session.

35. (Currently Amended) The media of claim 31 wherein the session setup includes an alias for the first machine unrelated to a network address and the second machine includes a registration server, and wherein selected ones of the machine-[[readable]] accessible media further include instructions, which when executed by the registration server, results in:

receiving the session setup, said session setup including the alias;

examining the session setup to identify whether the session setup comprises the internal origin address for the first machine; and if so,

registering the first machine with respect to the alias and the external origin address.

36. (Original) The media of claim 31 wherein instructions executed by the network translation device results in the network translation device performing:

receiving the initiation for the session from the second machine; and

translating the session acknowledgement for delivery to the first machine at the internal origin address.

37. (Currently Amended) An apparatus comprising a machine-[[readable]] accessible medium having associated instructions for a registration server to facilitate

communicating between a first endpoint behind a network address translator (NAT) and a second endpoint, wherein the instructions, if executed, results in:

receiving a first registration for the first endpoint according to a protocol utilizing a single communication port for both setting up and transferring data during a communication session, said registration comprising an embedded network address, port primed by the first endpoint, and alias for the first endpoint, said priming including sending data from the first endpoint using the port to prime the NAT to receive responsive data on the port;

determining the embedded network address is a non-routable address; and
registering the first endpoint with an apparent origin address, embedded port, and embedded alias;

receiving from the second endpoint a resolution request for the alias and replying to said request with at least the apparent origin address;

receiving an initiation for the session from the second endpoint;
forwarding the session setup to the first endpoint at the apparent origin address;
and

determining whether the second network address is routable, and if so, waiting for data to be sent to the second endpoint from the first endpoint.

38. (Original) The apparatus of claim 37, wherein the data to be sent to the second endpoint from the first endpoint comprises audiovisual data.

39. (Currently Amended) Machine-[[readable]] accessible media having ~~associated~~ instructions for ~~for~~ a first endpoint internal to a network translation device to set up a communication session with a second endpoint external to the network translation device, wherein the instructions, if executed by one or more machines, results in:

contacting a registration server to resolve an alias for the second endpoint;

receiving a first session registration from the registration server, the first session registration comprising a network address for the second endpoint that is routable, and a content port to which content should be sent to for the second endpoint; and

modifying a protocol for the communication session requiring the first endpoint to complete setting up the communication session and await receiving content from the second endpoint, said modifying including the first end point being configured to prime the network translation device by sending at least one network packet to the second endpoint at the routable address on the content port, before said completing setting up the communication session with the second endpoint; and

after said priming the network translation device, receiving content for the communication session on the content port.

40. (Currently Amended) The machine-[[readable]] accessible media of claim 39 wherein the instructions include further instructions, which if executed, results in :

sending a second session registration for the first endpoint to the registration server, the second session registration comprising a network address for the first endpoint that is non-routable.

41. (Currently Amended) The machine-[[readable]] accessible media of claim 40 wherein the instructions include further instructions, which if executed by the registration server, results in the registration server:

receiving the second session registration for the first endpoint from a routable network address associated with the network translation device;

identifying that the second session registration comprises a network address that is non-routable, and responsive thereto, registering the first endpoint with respect to the routable network address associated with the network translation device;

receiving the first session registration for the second endpoint; and

identifying that the second session registration comprises a network address that is routable, and responsive thereto, registering the first endpoint in accord with the first session registration.

42. (Currently Amended) The machine-[[readable]] accessible media of claim 40, wherein the registration server is configured to identify the non-routable network address within the second session registration, and responsive to said identifying, registering the first endpoint with respect to a routable address associated with the network translation device.